# Contractor's Progress, Status and Management Report --Monthly Progress Report

Period Covered by the Report 1 April through 30 April 2000

Date of Report: 12 May 2000

Wrist Interactive Device for Wearable PC SBIR Phase II Topic N95-137 Contract No. N00421-97-C-1293 Dollar Value \$1,708,653

ViA Inc. 12550 West Frontage Road Burnsville, MN 55337

Sponsor Charles D. Caposell Naval Air Systems Command AIR-4.5T

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Steve Case Minnesota State University, Mankato Department of Computer and Information Sciences 273 Wissink Hall, Box 225 Mankato, MN 56001

## 1. Progress & Plans

#### Hardware

### Phase 3/4 Boards

Expected delivery date on the CPU and Display boards is May 15.

#### RF

Design of Phase 4 RF board is completed. Layout and mechanical design of case are scheduled to occur in May. We have identified a SMT Bluetooth antenna of very small size made by Moteco and are in the process of ordering it.

### Audio

Design of the Phase 4 audio board is completed. Layout and mechanical design of case are scheduled to occur in May.

### **Optics**

The mechanical design of the lens mounting system and lightbox has been completed.

## **Battery System**

Testing of the battery protection circuit and of the battery cells themselves in both charging and discharging modes was completed successfully. A charger was identified and ordered.

## Mechanical Design

The mechanical design tasks that have been completed are:

- On/Off switches mounting in main case
- Completion of light box design
- Mounting of lens and finalization of plastic case

The mechanical design tasks that remain to be completed are:

- Audio module case
- RF module case
- Battery case, battery charger, and attachment to battery module on wrist band
- Wrist band clasp

These tasks have been scheduled and are expected to be completed by early June.

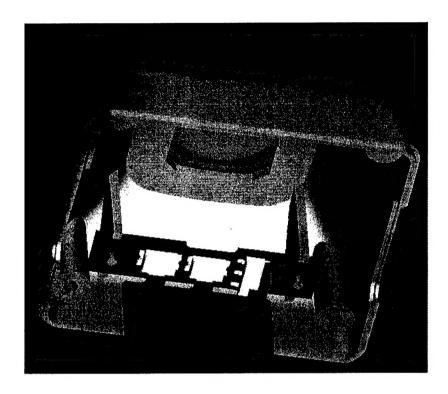


Fig. 1 Switch assembly

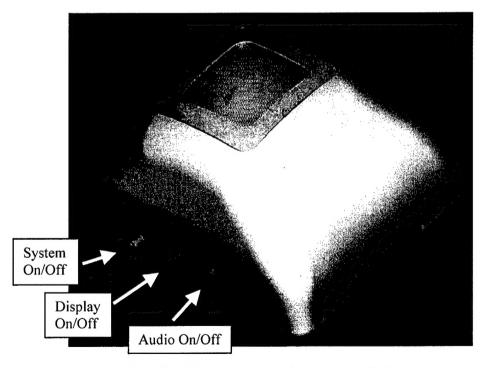


Fig. 2 Bezel for mounting of lens and switches

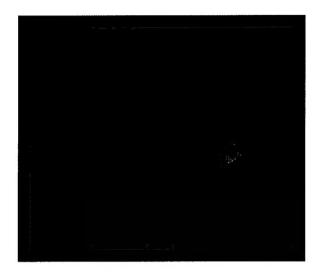


Fig. 3 Lightbox with frame holding LED cluster

### Software

### Bluetooth Drivers

Work is progressing to render the Bluetooth drivers under Windows CE robust and well engineered.

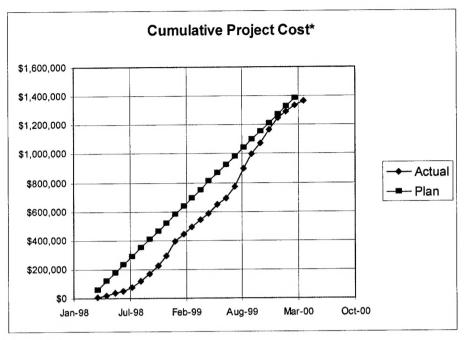
The Bluetooth driver on the Windows 98, host side, is completed. The management of graphical data is almost completed. The remaining task is the management of the audio data.

### **Audio Drivers**

Work is underway to develop a CE audio driver to allow communication between the StrongARM processor and the DSP. Andrea Electronics is waiting for us to finalize the microphone locations in the audio case in order to fine-tune their phase-filtering software.

## High-Level CE Software

No work was done in the month of April on the high-level CE software.



<sup>\*</sup>without G&A and fee

## 2. Project Cost

Cost incurred for the period and total cost, without G&A and Fee:

Current Month's Cost*	<b>Cumulative Cost</b>
\$30,624	\$1,364,358

<sup>\*</sup> Current month cost is 1 April through 30 April

Person-hours for the period and cumulatively:

<b>Current Month's Hours</b>	<b>Cumulative Hours</b>
415	17,226

## 3. Schedule and Staffing

Delivery of Digianswer/Motorola Bluetooth PC cards is expected in July. Unless software issues arise at this point, the WID prototypes should be ready for delivery shortly thereafter.

### 4. Author

Paolo Dini ViA, Inc. 12550 West Frontage Road Burnsville, MN 55337 (952) 736-3145 (952) 736-5944 (Fax) pdini@flexipc.com

### REPORT DOCUMENTATION PAGE

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